

- inoculating the mammal with a boosting immunization with a second recombinant vector comprising a second DNA vector and the gene encoding said antigen, wherein said second DNA vector is different from said first DNA vector, thereby inducing an enhanced immunological response.

Sub P2 S
2. (amended) The method according to claim 1, wherein the first recombinant vector comprises a recombinant vaccinia virus vector.

3. (amended) The method according to claim 1, wherein the first recombinant vector comprises a recombinant fowlpox virus vector.

4. (amended) The method according to claim 1, wherein the first recombinant vector comprises an adenovirus vector.

Sub B2 S
5. (amended) The method according to claim 1, wherein the recombinant vectors further comprise a gene encoding an immunostimulatory molecule.

Sub 10 2
6. (amended) The method according to claim 1, wherein the second recombinant vector comprises a recombinant vaccinia virus vector.

7. (amended) The method according to claim 1 wherein the second recombinant vector comprises a recombinant fowlpox virus vector.

Sub B3
9. (amended) A method for treatment of a cancer patient using heterologous boosting immunization as immunotherapy, said method comprising the steps of:

A1
CONT.

A2

- immunizing said patient with an effective amount of a first recombinant vector comprising a first viral vector and a gene encoding a tumor-associated antigen; and

- boosting said patient with an effective amount of a second recombinant vector comprising a second viral vector and the gene encoding the tumor-associated antigen, wherein said second viral vector is different from said first viral vector, thereby treating said patient.

10. (amended) The method according to claim 9, wherein the tumor-associated antigen comprises gp100.

11. (amended) The method according to claim 9, wherein the tumor-associated antigen comprises MART-1.

12. (amended) The method according to claim 9, wherein the tumor-associated antigen comprises TRP-1.

13. (amended) The method according to claim 9, wherein the tumor-associated antigen comprises TRP-2.

14. (amended) The method according to claim 9, wherein the recombinant vectors further comprise a gene encoding an immunostimulatory molecule.

15. (amended) The method according to claim 9, wherein the first viral vector comprises a vaccinia virus.

A2
CONT.
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